U.S. Public Port Development Expenditure Report

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INTRODUCTION

This report is the 14th in a series that continues the capital expenditure survey of U.S. public ports first begun by the Port Authority of New York and New Jersey in 1956. Subsequent reports were published by the American Association of Port Authorities (AAPA) and currently by the U.S. Maritime Administration (MARAD).

In 1991, MARAD first published the United States Port Development Expenditure Report, which summarized the findings of the earlier expenditure efforts, as well as several AAPA capital expenditure surveys. That report provided a 44-year history of the expenditure pattern of the U.S. public port industry from 1946 through 1989. Since that report, MARAD has produced annual reports covering the industry's current expenditures and proposed five-year capital expenditures.

This report analyzes the results of the AAPA capital expenditure survey for 2003. The survey included the capital expenditures for 2003 and proposed expenditures for the period 2004 through 2008, along with the funding sources used to finance these expenditures.

The survey data were obtained by AAPA from its U.S. corporate membership. Their U.S. members, public port agencies, represent virtually all the major deep-draft coastal and Great Lakes ports. This year's survey included responses from 46 (or 55%) of the 84 AAPA U.S. members – a lower response rate than last year's (70%). Port agencies responding to the FY 2003 survey included 24 out of the top 30 U.S. container ports in 2003 and 13 out of the top 25 ports handling U.S. foreign and domestic waterborne cargo for 2003. Public port agencies own approximately one-third of the U.S. deep-draft marine terminal facilities.

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This report also is available on MARAD's website (http://www.marad.dot.gov) under Publications / Ports & Domestic Shipping.

CAPITAL EXPENDITURES FOR U.S. PUBLIC PORT DEVELOPMENT

From 1946 through 2003, $27.0 billion in capital improvements to port facilities and related infrastructure were reported by U.S. public port industry respondents. Table 1 summarizes the historical expenditures by coastal region. The investments made over the past five years (1999-2003) account for 27 percent of the historical expenditures. These investments cover expenditures for the construction of new facilities and the modernization and rehabilitation of existing ones. During this 58-year period, the South Pacific region accounted for one-third (33.3%). The top three regions (South Pacific, North Atlantic, and Gulf) together accounted for over 68 percent of historical expenditures.

Table 1
U.S. Public Port Capital Expenditures for 1946 − 2003
(Thousands of Dollars)

Region	Expenditures	Percent
North Atlantic	$4,772,217	17.6%
South Atlantic	$3,924,617	14.5%
Gulf	$4,664,280	17.3%
South Pacific	$9,004,730	33.3%
North Pacific	$3,013,504	11.1%
Great Lakes	$567,535	2.1%
Non-contiguous*	$898,835	3.3%
Guam, Saipan	$193,242	0.7%
Total	$27,038,960	100.0%

* Alaska, Hawaii, Puerto Rico, & Virgin Islands

CAPITAL EXPENDITURES - 2003

This section analyzes the U.S. public port capital expenditures for 2003. The public port industry's annual capital expenditures as reported by respondents exceeded the one billion-dollar mark for the ninth consecutive year. The 2003 expenditures totaled $1.7 billion. This level of investment reflects the public port industry's efforts to address the increasing demands being placed on waterborne transportation through improvements to their marine terminal facilities and related land and waterside connections, as well as meeting today's need for enhanced port security. Appendix B contains a list of the 46 ports that responded to the 2003 expenditure survey. Of those responding, 45 ports provided data.

Capital Expenditures - By Expenditure Category

Table 2 provides a breakdown of capital expenditures by expenditure category. Facility definitions follow. Each of the five cargo facility types (general cargo, specialized general cargo, dry and liquid bulk, and passenger) includes expenditures for pier or wharf structures, storage facilities, and handling equipment. “Specialized general cargo” includes container, roll-on/roll-off (ro-ro), and auto facilities. "Other" includes those structures and fixtures not directly related to the movement of cargo, such as maintenance and administrative facilities. Infrastructure expenditures cover improvements, such as roadways, rail, and utilities that are located on- or off-terminal property. Dredging consists of local port expenditures associated with the dredging (deepening and/or maintenance) of Federal and non-Federal channels, connecting channels, and berths, as well as local costs for land, easements, rights-of-way, and disposal areas.

As shown in Table 2, specialized general cargo facilities were the leading expenditure category, both overall and among the six facility types, accounting for nearly half (or 48.8%) of 2003 capital investments. The South Pacific region accounted for over 40 percent ($330.7 million), with the North Pacific region a distant second at $156.3 million (19.1%).

Table 2
U.S. Public Port Capital Expenditures by Expenditure Category for 2003
(Thousands of Dollars)

Region	Type of Facility						Infrastructure		Dredging	Total
	General Cargo	Specialized General Cargo	Dry Bulk	Liquid Bulk	Passenger	Other*	On-Terminal	Off-Terminal		
North Atlantic	$36,261	$137,695	$5,665	–	$1,865	$11,174	$55,224	$122	$137,278	$385,284
South Atlantic	21,234	129,188	1,004	4,023	43,122	53,244	19,975	1,988	30,873	304,651
Gulf	66,174	66,075	4,241	5,153	18,670	11,345	42,468	2,029	21,030	237,185
South Pacific	18,216	330,746	11,831	2,145	3,340	33,219	23,801	39,007	68,705	531,010
North Pacific	21,377	156,253	75	12	14,757	17,830	1,094	6,008	5,433	222,839
Total	$163,262	$819,957	$22,816	$11,333	$81,754	$126,812	$142,562	$49,154	$263,319	$1,680,969
Percent by Facility Type	9.7%	48.8%	1.4%	0.7%	4.9%	7.5%	8.5%	2.9%	15.7%	100.0%

* Ports included the following expenses under “Other” – security, environmental, buildings (administrative, maintenance, etc.), warehouse, facilities, equipment, software, fire station, groundwater, land, studies, roof repair, land survey, parking, industrial park, marina, environmental impact statements, moorage, JIT (just-in-time), maintenance, fire boat, and recreation. A number of ports did not define “other” at all.

Dredging was the second highest expenditure category, accounting for 15.7 percent of the total, with the North Atlantic (52.1%) and South Pacific (26.1%) regions together accounting for over three quarters (or 78.2 percent). Referring to Table 3, which looks at dredging expenses more closely, we see that most was spent on improvements (86.1%) versus maintenance (13.9%). The North Atlantic region alone accounted for more than half of all improvements (52.0%).

Port infrastructure improvements (on- and off-terminal combined) were the third largest expenditure category at 11.4 percent of 2003 expenditures, with on-terminal expenditures accounting for the

majority (or 74.4%). The South Pacific region accounted for nearly one-third of combined infrastructure expenditures (32.8%), followed by the North Atlantic and Gulf regions at 28.9 percent and 23.2 percent, respectively. It is interesting to note that of off-terminal improvements, the South Pacific region alone accounted for over three-fourths (79.4%). (See Table 4 for a more detailed examination of infrastructure investments.)

The fourth largest investment in 2003 was for general cargo facilities, representing 9.7 percent ($163.3 million) of total expenditures. At 40.5 percent and 22.2 percent, respectively, the Gulf and North Atlantic regions lead this cargo facility type in expenditures.

Table 3
U.S. Public Port Capital Dredging Expenditures for 2003
Improvement vs. Maintenance
(Thousands of Dollars)

Region	Improvement	Maintenance	Total	%
North Atlantic	$117,957	$19,321	$137,278	52.1%
South Atlantic	27,381	3,492	30,873	11.7%
Gulf	14,807	6,223	21,030	8.0%
South Pacific	61,187	7,518	68,705	26.1%
North Pacific	5,396	37	5,433	2.1%
Total	$226,728	$36,591	$263,319	100.0%
%	86.1%	13.9%	100.0%	

Table 4 provides a more detailed examination of the public port industry's infrastructure investments. It breaks down the on- and off-terminal infrastructure investments into four subcategories – road, rail, utilities, and other. On-terminal "other" expenditures accounted for 45.7 percent, while off-terminal utility investments accounted for 37.2 percent.

Table 4
U.S. Public Port Capital Infrastructure Expenditures for 2003
(Thousands of Dollars)

Region	On-Terminal				Off-Terminal				Total
	Road	Rail	Utilities	Other*	Road	Rail	Utilities	Other**	
North Atlantic	$7,588	$35,708	$95	$11,833	$122	–	–	–	$55,346
South Atlantic	6,098	463	2,170	11,244	1,834	–	1	153	21,963
Gulf	9,473	3,060	1,113	28,822	314	763	253	699	44,497
South Pacific	181	8,408	1,939	13,273	13,821	4,161	18,013	3,012	62,808
North Pacific	529	312	239	14	176	3,446	–	2,386	7,102
Total	$23,869	$47,951	$5,556	$65,186	$16,267	$8,370	$18,267	$6,250	$191,716
	16.7%	33.6%	3.9%	45.7%	33.1%	17.0%	37.2%	12.7%	

* On-terminal "other" defined by survey respondents as fences, bridges, security improvements, parking, land expansion, environmental impact statements, and paving. Several ports did not define "other" at all.

** Off-terminal "other" defined by survey respondents as navigation lights, mitigation, signage, overpass/underpass, and bridges. A number of ports did not define "other" at all.

Capital Expenditures - New Construction vs. Modernization/Rehabilitation

Table 5 summarizes 2003 capital expenditures in two ways – by new construction and by modernization/rehabilitation (mod/rehab). For 2003, expenditures for new construction accounted for 60.8 percent of total reported expenditures (versus 39.2% for mod/rehab), and specialized general cargo represented over half (52.2%) of all new construction expenditures. The balance of the new construction expenditures was distributed primarily between dredging (16.0%) and infrastructure (10.8%). Together, the three categories (specialized general cargo, dredging, and infrastructure) accounted for 79 percent of new construction expenditures. Looking at new construction expenditure patterns by geographical region, the South Pacific led with $339.9 million (33.3%), followed by the South Atlantic at $221.6 million (21.7%), and the North Atlantic at $180.6 million (17.7%).

Table 5
U.S. Public Port Capital Expenditures by Type of Expenditure and Facility for 2003
(Thousands of Dollars)

Region	NEW CONSTRUCTION									
	Type of Facility						Infrastructure		Dredging	Total
	General Cargo	Specialized General Cargo	Dry Bulk	Liquid Bulk	Passenger	Other	On-Terminal	Off-Terminal		
North Atlantic	$14,703	$5,049	$5,665	–	$109	$5,470	$31,715	–	$117,898	$180,609
South Atlantic	7,877	115,624	1,000	–	23,663	50,383	12,329	1,121	9,637	221,634
Gulf	24,368	58,774	2,847	4,813	8,396	8,464	38,220	1,112	17,817	164,811
South Pacific	15,040	263,758	238	69	3,340	17,734	17,719	7,748	14,217	339,863
North Pacific	382	90,359	55	–	14,370	5,984	331	133	3,551	115,165
Total	$62,370	$533,564	$9,805	$4,882	$49,878	$88,035	$100,314	$10,114	$163,120	$1,022,082
Percent by Facility Type	6.1%	52.2%	1.0%	0.5%	4.9%	8.6%	9.8%	1.0%	16.0%	

Region	MODERNIZATION / REHABILITATION									
	Type of Facility						Infrastructure		Dredging	Total
	General Cargo	Specialized General Cargo	Dry Bulk	Liquid Bulk	Passenger	Other	On-Terminal	Off-Terminal		
North Atlantic	$21,558	$132,646	–	–	$1,756	$5,706	$23,509	$122	$19,380	$204,677
South Atlantic	13,357	13,564	4	4,023	19,460	2,861	7,646	867	21,237	83,019
Gulf	41,806	7,300	1,394	339	10,274	2,881	4,247	917	3,213	72,371
South Pacific	3,176	66,988	11,593	2,076	–	15,485	6,081	31,259	54,488	191,146
North Pacific	20,995	65,894	20	12	387	11,845	763	5,875	1,882	107,673
Total	$100,892	$286,392	$13,011	$6,450	$31,877	$38,778	$42,246	$39,040	$100,200	$658,886
Percent by Facility Type	15.3%	43.5%	2.0%	1.0%	4.8%	5.9%	6.4%	5.9%	15.2%	

Within the specialized general cargo category, the South Pacific region accounted for $263.8 million (49.9%) and the South Atlantic region for 21.7 percent ($115.6 million). With $117.9 million (72.3%) in new construction dredging expenditures, the North Atlantic region outspent the next highest region (the Gulf) by over 6½ times. New on-terminal infrastructure expenditures represented nearly all (90.8%) of combined on- and off-terminal investments, with the top three regions (Gulf at 34.6%, North Atlantic at 28.7%, and South Pacific at 16.1%) accounting for over three-fourths (79.4%) of on-terminal activity.

Also of interest were general cargo and passenger facility new construction investments. At 6.1 percent of the total, general cargo expenditures were concentrated in the Gulf (39.1%), South Pacific (24.1%), and North Atlantic (23.6%). The 2003 new construction passenger facility investments were concentrated in the South Atlantic and Gulf regions at 61.0 percent and 32.2 percent, respectively.

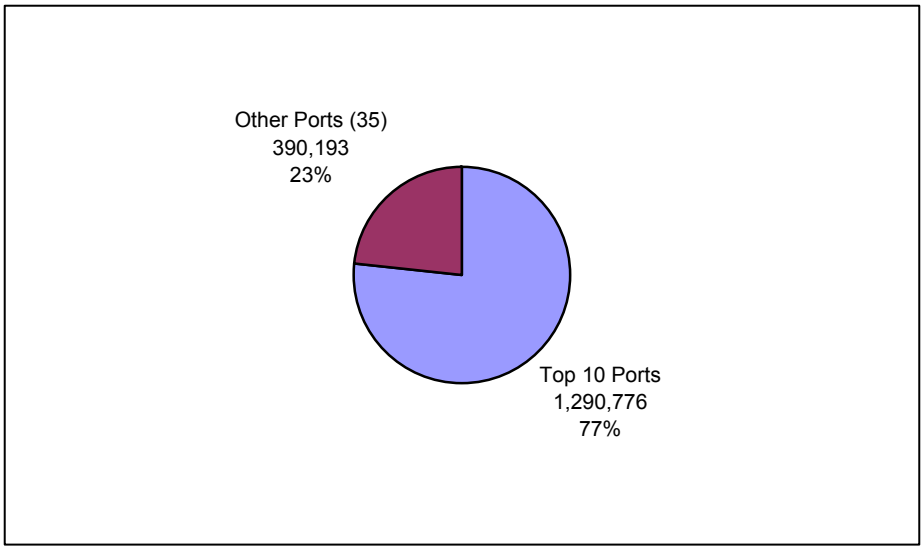
For mod/rehab expenditures, three categories dominate – specialized general cargo (43.5%), general cargo (15.3%), and dredging (15.2%) – which, when combined, account for 74.0 percent of all mod/rehab investments. Together the North Atlantic and South Pacific regions represent well over half (60.1%) of total mod/rehab expenditures, at $204.7 million (31.1%) and $191.1 million (29.0%), respectively.

Within the mod/rehab specialized general cargo segment, the North Atlantic (46.3%), South Pacific (23.4%), and North Pacific (23.0%) regions together accounted for 92.7 percent of expenditures. The general cargo category was geographically diverse, with 41.4 percent, 21.4 percent, and 20.8 percent concentrated in the Gulf, North Atlantic, and North Pacific regions, respectively. Dredging investments were concentrated in the South Pacific at $54.5 million (54.4%) and the South Atlantic at $21.2 million (21.2%).

Capital Expenditures - Distribution Pattern

The concentration of 2003 capital expenditures among the 44 responding ports is shown in Figure 1. The data reveal that the majority of expenditures is concentrated in a minority of ports. As shown below, the top 10 ports accounted for more than three-fourths (or 76.8%) of expenditures. In contrast, the remaining 35 ports together accounted for 23.2 percent. Table 6 on the next page identifies the top 10 ports in 2003.

Figure 1
Concentration of Public Port Capital Expenditures – 2003



Capital Expenditures - Leading Port Authorities

Table 6 shows the leading U.S. public port authorities based on total 2003 capital expenditures. These ten organizations accounted for over 75 percent of all capital expenditures by respondent public ports. The Port Authority of New York/New Jersey was the leading port, investing $304.7 million. The top 10 port authorities listed were distributed primarily between the West and East Coasts, with five located on the West Coast, four on the East Coast, and one in the Gulf.

Table 6
Leading Port Authorities for 2003
By Total Capital Expenditures
(Thousands of Dollars)

Rank	Port Authority	Expenditures
1	Port Authority of New York/New Jersey	$ 304,700
2	Port of Los Angeles	229,222
3	Port of Long Beach	169,989
4	Port of Tacoma	108,752
5	Port of Seattle	101,567
6	Virginia Port Authority	87,012
7	Port of Oakland	83,880
8	Georgia Ports Authority	72,742
9	Port of New Orleans	69,123
10	Maryland Port Administration	63,789
	Total Top Ten Ports	$1,290,776
	Total Expenditures	$1,680,969
	Percent of Total	76.8%

PROPOSED CAPITAL EXPENDITURES – 2004 - 2008

The 2003 AAPA capital expenditure survey included proposed expenditures for 2004 through 2008. Table 7 summarizes reported expenditures by coastal region. During this five-year period, public port expenditures are projected to reach $10.6 billion. Appendix A contains a list of the 46 survey respondents of which 45 provided information on proposed expenditures.

Of the five regions below, all predict expenditures greater than $1 billion between 2004-2008. One region (South Pacific) predicts expenditures over $3 billion, two regions (South Atlantic and Gulf) project investment levels in excess of $2 billion, and the final two regions (North Atlantic and North Pacific) estimate expenditures over $1 billion. From a coastwise perspective, the West Coast leads with over $4.7 billion (44.8%), followed respectively by the East Coast with $3.8 billion (36.2%), and the Gulf with $2.0 billion (19.1%).

Table 7
U.S. Public Port Capital Expenditures for 2004 - 2008
(Thousands of Dollars)

Region	Expenditures	Percent
North Atlantic	$1,472,197	13.9%
South Atlantic	2,348,159	22.2%
Gulf	2,012,895	19.1%
South Pacific	3,626,281	34.3%
North Pacific	1,099,914	10.4%
Total	$10,559,446	100.0%

Capital Expenditures - By Expenditure Category

Table 8 shows proposed future expenditures by expenditure category. Specialized general cargo is the leading category at 41.0 percent, with proposed expenditures of $4.3 billion. The South Pacific is expected to account for over one-third (39.1%) of the proposed expenditures in this category with $1.7 billion.

The second and third largest expenditure categories are infrastructure (on- and off-terminal combined) and “other.” Projected infrastructure investments are expected to total $1.7 billion (16.4%), with on-terminal expenditures accounting for 69.3 percent. The South Pacific and South Atlantic regions are projected to spend 35.9 percent and 28.8 percent, respectively, of overall infrastructure investments, with the Gulf region at 15.8 percent. (Table 9 on the next page provides a detailed breakdown of the proposed infrastructure expenditures by region.)

“Other” expenditures, the third largest category, will account for 15.2 percent of the projected $1.6 billion total, with the South Pacific accounting for 61.7 percent, followed by the North Pacific (15.1%), and Gulf (13.3%) regions.

Table 8
U.S. Public Port Capital Expenditures by Expenditure Category for 2004 - 2008
(Thousands of Dollars)

Region	Type of Facility						Infrastructure		Dredging	Total
	General Cargo	Specialized General Cargo	Dry Bulk	Liquid Bulk	Passenger	Other*	On-Terminal	Off-Terminal		
North Atlantic	$140,750	$451,360	$15,382	$0	$22,761	$99,611	$260,360	$812	$481,161	$1,472,197
South Atlantic	206,540	858,150	22,967	60,159	361,552	59,530	382,574	116,485	280,202	2,348,159
Gulf	328,241	729,974	99,382	14,984	254,097	212,617	195,711	78,440	99,449	2,012,895
South Pacific	25,161	1,695,137	17,392	118,090	200	989,677	326,456	295,949	158,219	3,626,281
North Pacific	74,312	596,490	6,465	9,425	2,100	243,039	37,376	38,745	91,962	1,099,914
Total	$775,004	$4,331,111	$161,588	$202,658	$640,710	$1,604,474	$1,202,477	$530,431	$1,110,993	$10,559,446
Percent by Facility Type	7.3%	41.0%	1.5%	1.9%	6.1%	15.2%	11.4%	5.0%	10.5%	

* "Other" was defined by survey respondents as security, world trade center, environment, facilities (administrative, maintenance, recreational, cruise terminal, etc.), warehouse, land, software, equipment, fire station, groundwater cleanup, consulting, studies, industrial park, small craft harbor, wharf, disposal, marina, master plan, environmental impact statement, moorage, just-in-time, bridges, fireboats, and shipyard. Several ports did not define "other" at all.

Table 9 provides a more detailed examination of the public port industry's five-year projected infrastructure investments. It breaks down on- and off-terminal infrastructure investments into four subcategories – road, rail, utilities, and "other." Primary on-terminal expenditures were "other" ($550.2 million or 45.8%) and rail ($432.4 million or 36.0%), while off-terminal investments were more evenly distributed between road ($196.8 million or 37.1%), "other" ($152.8 million or 28.8%), and utilities ($119.2 million or 22.5%).

Table 9
U.S. Public Port Capital Infrastructure Expenditures for 2004-2008
(Thousands of Dollars)

Region	On-Terminal				Off-Terminal				Total
	Road	Rail	Utilities	Other	Road	Rail	Utilities	Other	
North Atlantic	$2,383	$210,296	$13,871	$33,810	$762	–	–	$50	$261,172
South Atlantic	40,984	77,195	6,142	258,253	8,887	9,172	–	98,426	499,059
Gulf	66,056	23,799	21,498	84,358	27,640	9,637	13,016	28,147	274,151
South Pacific	20,893	90,426	43,154	171,983	157,371	19,409	106,137	13,032	622,405
North Pacific	3,904	30,699	1,020	1,753	2,146	23,504	–	13,095	76,121
Total	$134,220	$432,415	$85,685	$550,157	$196,806	$61,722	$119,153	$152,750	$1,732,908
	11.2%	36.0%	7.1%	45.8%	37.1%	11.6%	22.5%	28.8%	

Capital Expenditures - Comparison of 2003 and 2004 – 2008

Table 10 compares the relative investment levels by facility type between actual 2003 expenditures and those proposed for 2004-2008. It can give the reader an indication of shifts in port industry priorities.

Investments in specialized general cargo facilities (i.e., container, roll-on/roll-off, and auto facilities) and dredging are projected to drop 7.8 percent and 5.2 percent, respectively, while "other" (i.e., structures and fixtures not directly related to the movement of cargo, such as maintenance and administrative facilities) and infrastructure increase by approximately the same percentage amounts. Projected infrastructure expenditure gains reflect the continued need for improved access.

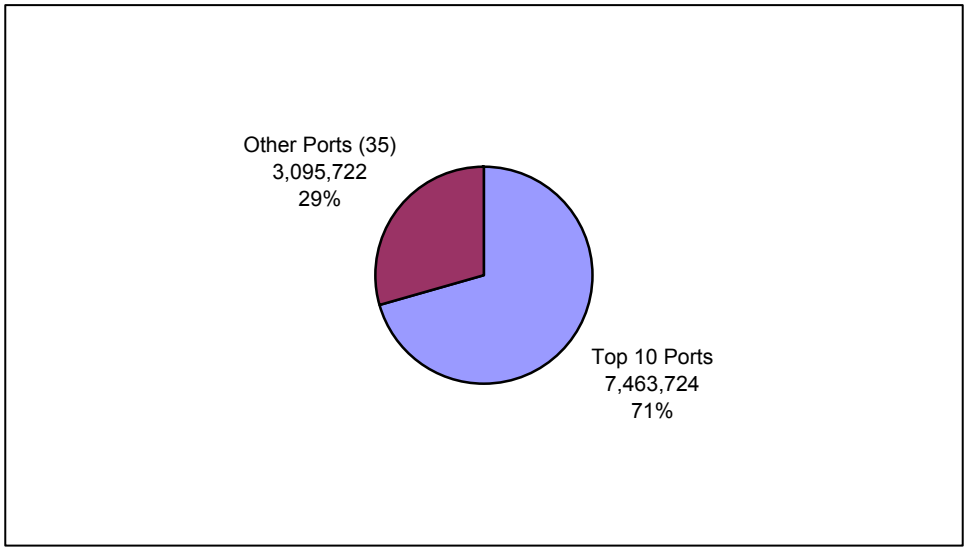
Table 10
Changes in Composition of Port Expenditures − Actual 2003 vs. Projected 2004-2008

Expenditure Type	2003 Expenditures	2004 – 2008 Expenditures	Relative Change 2003 vs. 2004-2008
General Cargo	9.7%	7.3%	− 2.4%
Specialized General Cargo	48.8%	41.0%	− 7.8%
Dry Bulk	1.4%	1.5%	+ 0.1%
Liquid Bulk	0.7%	1.9%	+ 1.2%
Passenger	4.9%	6.1%	+ 1.2%
Other	7.5%	15.2%	+ 7.7%
Infrastructure	11.4%	16.4%	+ 5.0%
Dredging	15.7%	10.5%	− 5.2%
Total	100.0%	100.0%	

Capital Expenditures - Distribution Pattern

Figure 2 shows the distribution of proposed 2004-2008 capital expenditures. As seen below, the top ten ports accounted for 71 percent of the public port industry's proposed expenditures. The proposed investments by these ports continue to focus on developing major new marine facilities, improving infrastructure, or dredging projects – or combinations of these activities. Table 11 on the next page identifies the top 10 ports in projected expenditures for the five years 2004-2008.

Figure 2
Concentration of Projected Public Port Capital Expenditures – 2004-2008



Projected Capital Expenditures - Leading Port Authorities

Table 11 lists the leading port authorities based on the projected capital expenditures for the 2004-2008 period. These ten ports account for $7.5 billion (70.7%) of the projected $10.6 billion in capital expenditures. The Ports of Long Beach and Los Angeles predicted expenditure programs above $1 billion. Of the top 10 port authorities listed below, five were located on the East Coast, four on the West Coast, and one in the Gulf.

Table 11
Leading Port Authorities for 2004 – 2008
By Total Projected Capital Expenditures
(Thousands of Dollars)

Rank	Port Authority	Projected Expenditures
1	Port of Long Beach	$1,832,731
2	Port of Los Angeles	1,287,253
3	Port Authority of New York/New Jersey	960,860
4	Port of Houston Authority	841,898
5	Port Everglades	507,955
6	Virginia Port Authority	451,466
7	Jacksonville Port Authority	417,279
8	Maryland Port Administration	406,032
9	Port of Oakland	396,786
10	Port of Seattle	361,464
	Total Top Ten Ports	$7,463,724
	Total Projected Expenditures	$10,559,446
	Percent of Total	70.7%

METHODS OF FINANCING CAPITAL EXPENDITURES

The 2003 AAPA expenditure survey also requested information on the methods used by the U.S. public port industry to finance its capital expenditure programs. The survey utilized the following six funding categories to classify the financing sources: port revenues, general obligation bonds (GO bonds), revenue bonds, loans, grants, and "other". The "other" funding category includes all financing sources that were not described above, such as state transportation trust funds, state and local appropriations, taxes (property, sales), and lease revenue.

This section describes the financing methods used to fund 2003 expenditures and proposed methods for the projected 2004-2008 expenditures.

Funding Sources – 2003

Table 12 examines the distribution of 2003 funding sources by coastal region. Port revenues were the preferred financing method two ways – by amount of reported activity (49.6%), as well as by number of regions ranking it as #1 (three of five regions: North Atlantic, South Pacific, and Gulf). Revenue bonds were the second most preferred financing method, and GO bonds, third. Grants and loans were the least preferred methods in terms of total activity (6.6% and 3.0%, respectively). Loans also have the distinction of having the fewest number of geographic regions that used it at all (two out of five).

The South Pacific was a heavy user of port revenues and revenue bonds in 2003, financing 90 percent of its expenditures with those methods that year. They and the North Atlantic were the principal users of port revenues, together accounting for over three-fourths (79.3%) of activity. In revenue bonds, they alone accounted for over half of all activity.

Table 12
U.S. Public Port Capital Expenditures by Type of Financing Method for 2003[1]
(Thousands of Dollars)

Region	Facility Expenditures by Financing Method												
	Port Revenues	Pct.	GO Bonds	Pct.	Revenue Bonds	Pct.	Loans	Pct.	Grants	Pct.	Other	Pct.	Total
North Atlantic	$309,172	41.2%	–	0.0%	$4,119	1.8%	–	0.0%	$3,721	3.7%	$68,269	36.2%	$385,281
South Atlantic	43,881	5.8%	56,078	27.2%	81,589	36.5%	32,644	71.9%	39,560	39.6%	38,063	20.2%	291,815
Gulf	53,010	7.1%	38,756	18.8%	20,008	8.9%	12,785	28.1%	28,240	28.3%	14,643	7.8%	167,442
South Pacific	286,405	38.1%	–	0.0%	117,841	52.7%	–	0.0%	22,445	22.5%	20,438	10.8%	447,129
North Pacific	58,386	7.8%	111,217	54.0%	–	0.0%	–	0.0%	5,849	5.9%	47,386	25.1%	222,838
Total	$750,854	100.0%	$206,051	100.0%	$223,557	100.0%	$45,429	100.0%	$99,815	100.0%	$188,799	100.0%	$1,514,505
Percent by Funding Source	49.6%		13.6%		14.8%		3.0%		6.6%		12.5%		100.0%

[1] Excludes expenditures of $166,461,000 for which there was no information on funding source.

Funding Sources – 2004 - 2008

Table 13 shows the anticipated funding sources for the U.S. public port industry's proposed 2004-2008 capital expenditure program. Port revenues, "other", and revenue bonds were the principal funding sources at 46.6 percent, 16.9 percent, and 16.7 percent, respectively, with their combined projected use accounting for over three-fourths (80.2%) of overall projected funding. Three coastal regions – the South Pacific, North Atlantic, and North Pacific – anticipate port revenues to be their leading funding source, while GO bonds and "other" led in the remaining two regions. Similar to actual 2003 experience in the previous section, loans were the least preferred method, both in terms of overall activity (1.0%), as well as in number of geographic regions expecting to use them (two out of five).

For three out of six financing methods the South Pacific was the primary user: port revenues at $2.2 billion (46.9%), revenue bonds at $986.0 million (58.9%), and grants at $383.0 million (45.5%). The South Atlantic was the primary user of two other financing methods: "other" at $798.8 million (47.0%) and loans at $81.3 million (83.0%), and the Gulf was the primary user of GO bonds at $601.7 million (57.7%).

Table 13
U.S. Public Port Capital Expenditures by Type of Financing Method for 2004 - 2008[2]
(Thousands of Dollars)

Region	Facility Expenditures by Financing Method												
	Port Revenues	Pct.	GO Bonds	Pct.	Revenue Bonds	Pct.	Loans	Pct.	Grants	Pct.	Other	Pct.	Total
North Atlantic	$1,025,421	21.9%	–	0.0%	–	0.0%	–	0.0%	$21,157	2.5%	$425,618	25.0%	$1,472,196
South Atlantic	400,825	8.6%	241,979	23.2%	310,687	18.6%	81,272	83.0%	97,337	11.6%	798,780	47.0%	1,930,880
Gulf	551,533	11.8%	601,659	57.7%	124,070	7.4%	16,700	17.0%	297,648	35.3%	308,698	18.2%	1,900,308
South Pacific	2,193,465	46.9%	–	0.0%	986,020	58.9%	–	0.0%	383,015	45.5%	63,780	3.8%	3,626,280
North Pacific	502,639	10.8%	198,360	19.0%	253,086	15.1%	–	0.0%	43,401	5.2%	102,428	6.0%	1,099,914
Total	$4,673,883	100.0%	$1,041,998	100.0%	$1,673,863	100.0%	$97,972	100.0%	$842,558	100.0%	$1,699,304	100.0%	$10,029,578
Percent by Funding Source	46.6%		10.4%		16.7%		1.0%		8.4%		16.9%		100.0%

[2] Excludes expenditures of $529,865,000 for which there was no information on funding source.

Funding Sources - Comparison of 2003 and 2004 - 2008

In Table 14, the funding sources used to finance the port industry's 2003 expenditures are compared with projected expenditures between 2004-2008. Port revenues are the primary funding source for both periods, with a decrease of 3.0 percent projected for the 2004-2008 period. GO bond and loan usage are predicted to decline 3.2 percent and 2.0 percent, respectively. Use of revenues bonds, grants, and "other" are expected to increase 1.9 percent, 1.8 percent, and 4.4 percent, respectively.

Table 14
Changes in Composition of Port Financing Methods − Actual 2003 vs. Projected 2004-2008

Financing Method	2003 Actual	2004- 2008 Projected	Relative Change 2003 vs. 2004-2008
Port Revenues	49.6%	46.6%	− 3.0%
GO Bonds	13.6%	10.4%	− 3.2%
Revenue Bonds	14.8%	16.7%	+ 1.9%
Loans	3.0%	1.0%	− 2.0%
Grants	6.6%	8.4%	+ 1.8%
Other	12.5%	16.9%	+ 4.4%
Total	100.0%	100.0%	

Appendix A – Historical Data on Capital Expenditures and Funding Sources

Capital Expenditures – 1999 - 2003

Table A1 shows the annual expenditures from 1999 to 2003 broken down by region. No attempt is made to analyze this time series data, as the number and composition of ports responding each year differed, thus rendering analysis impossible.

Table A1
U.S. Public Port Capital Expenditures for 1999 - 2003
(Thousands of Dollars)

Region	1999		2000		2001		2002		2003	
	Expenditure	No. of Surveys Rec'd	Expenditure	No. of Surveys Rec'd	Expenditure	No. of Surveys Rec'd	Expenditure	No. of Surveys Rec'd	Expenditure	No. of Surveys Rec'd
North Atlantic	$50,893	5	$233,186	6	$176,315	6	$336,223	8	$385,284	6
South Atlantic	245,634	8	192,567	7	220,027	7	159,834	7	304,651	8
Gulf	265,054	18	233,160	18	169,823	17	252,550	22	237,185	15
South Pacific	454,614	9	263,030	9	981,534	7	836,683	8	531,010	8
North Pacific	95,160	6	130,461	8	117,967	10	78,776	8	222,839	8
Great Lakes	4,325	4	5,046	4	1,000	2	310	2	–	
Non-contiguous*	–		–		73,468	4	4,792	3	–	
Guam, Saipan	–		203	1	–		–		–	
Total	$1,115,680	50	$1,057,653	53	$1,740,134	53	$1,669,168	58	$1,680,969	45

* Alaska, Hawaii, Puerto Rico, & Virgin Islands

Funding Sources – 1999 - 2003

Table A5 provides an historical summary of financing methods used between 1999 - 2003. No attempt is made to analyze this time series data, as the number and composition of ports responding each year differed, thus rendering analysis impossible.

Table A2
U.S. Public Port Capital Expenditures by Type of Financing Method for 1999 - 2003[3]
(Thousands of Dollars)

Method	1999	2000	2001	2002	2003
Port Revenues	$472,978	$431,265	$802,331	$547,040	$750,854
GO Bonds	82,879	82,040	96,478	334,372	206,051
Revenue Bonds	228,187	97,946	449,088	188,120	223,557
Loans	70,207	34,477	12,401	60,281	45,429
Grants	149,665	143,579	94,453	110,047	99,815
Other	62,245	108,609	119,005	187,076	188,799
Total	$1,066,161	$897,916	$1,573,756	$1,426,936	$1,514,505
No. of Surveys Rec'd	50	53	53	58	45

[3] Excludes expenditures for which there was no information on funding source: 2003 - $166,461,000 2002 - $242,232,000 2001 - $166,378,000 2000 - $159,737,000 1999 - $49,519,000.

Appendix B – Respondents to 2003 & 2004-2008 AAPA Capital Expenditure Surveys

Respondent	2003 Survey	2004 - 2008 Survey
North Atlantic		
Albany Port District Commission	–	–
Diamond State Port Corp. (Wilmington, DE)	x	x
Maryland Port Administration (Baltimore)	x	x
Massachusetts Port Authority (Boston)	x	x
Philadelphia Regional Port Authority	–	–
Port of Richmond (VA)	x	x
South Jersey Port Corporation	x	x
The Port Authority of New York & New Jersey	x	x
South Atlantic		
Canaveral Port Authority	x	x
Georgia Ports Authority	x	x
Jacksonville Port Authority	x	x
North Carolina State Ports Authority	x	x
Port Everglades Port Authority	x	x
Port of Miami	x	x
Port of Palm Beach	–	–
South Carolina State Ports Authority	x	x
Virginia Port Authority	x	x
Gulf		
Alabama State Port Authority	x	x
Greater Baton Rouge Port Commission	x	x
Greater Lafourche Port Commission	x	x
Lake Charles Harbor and Terminal District	x	x
Mississippi State Port Authority at Gulfport	x	x
Panama City Port Authority	–	–
Plaquemines Port Authority	–	–
Port Manatee	–	–
Port of Beaumont	–	–
Port of Brownsville	–	–
Port of Corpus Christi Authority	–	–
Port of Freeport	x	x
Port of Galveston	x	x
Port of Houston Authority	x	x
Port of New Orleans	x	x
Port of Orange	–	–
Port of Pascagoula	–	–
Port of Pensacola	x	x
Port of Port Arthur	x	x
Port of Port Lavaca / Point Comfort	x	x
Port of South Louisiana	x	x
St. Bernard Port, Harbor & Terminal District	x	x
Tampa Port Authority	x	x

Respondent	2003 Survey	2004 - 2008 Survey
South Pacific		
Port of Hueneme/Oxnard Harbor District	X	X
Port of Humboldt Bay	–	–
Port of Long Beach	X	X
Port of Los Angeles	X	X
Port of Oakland	X	X
Port of Redwood City	X	X
Port of Sacramento	–	–
Port of Stockton	X	X
San Diego Unified Port District	X	X
San Francisco	X	X
North Pacific		
Port of Bellingham	X	X
Port of Coos Bay	–	–
Port of Everett	X	X
Port of Grays Harbor	–	–
Port of Kalama	X	X
Port of Longview	–	–
Port of Olympia	X	X
Port of Portland (OR)	X	X
Port of Seattle	X	X
Port of Tacoma	X	X
Port of Vancouver (USA)	X	X
Great Lakes		
Cleveland-Cuyahoga County Port Authority	–	–
Detroit/Wayne County Port Authority	–	–
Duluth Seaway Port Authority	–	–
Indiana Port Commission	–	–
Port of Chicago	–	–
Port of Green Bay	–	–
Port of Milwaukee	–	–
Toledo-Lucas County Port Authority	X	X
Non-Contiguous		
Anchorage	–	–
Commonwealth Port Authority of Saipan	–	–
Hawaii DOT	–	–
Port Authority of Guam	–	–
Port of Ponce, PR	–	–
Puerto Rico Ports Authority	–	–
Virgin Islands Port Authority	–	–

(−) Indicates survey not returned / no data provided.

APPENDIX C

Port Name: _____ **Date:**

AAPA PORT EXPENDITURE SURVEY – FY 2003

(Actual U.S. Dollars)

For the Fiscal Year Ended: _____, 2003 [NO LATER THAN 12/31/03]

FACILITY TYPE		TOTAL EXPENDITURES	NEW CONSTRUCTION	MODERNIZATION/ REHABILITATION
General Cargo[1]		.00	.00	.00
Specialized General Cargo[1] (Incl: container, ro-ro, auto)				
Dry Bulk Cargo[1]				
Liquid Bulk Cargo[1]				
Passenger or Cruise[1]				
Infrastructure Improvements[2]				
On-Terminal	Highway	.00	.00	.00
	Rail			
	Utilities			
	Other (_____)			
Off-Terminal	Highway			
	Rail			
	Utilities			
	Other (_____)			
Dredging				
	Improvement[3]	.00	.00	.00
	Maintenance[4]			
Other[5]	(Specify _____)			
	(Specify _____)			
	(Specify_____)			
Total		.00	.00	.00

TYPE OF FUNDING SOURCE	DOLLAR AMOUNT (Actual US$)
Internal Revenues (Earned Income)	.00
General Obligation Bonds	.00
Revenue Bonds	.00
Loans (Source: _____)	.00
Grant (Type:_____)	.00
Other (Specify: _____)	.00
(Specify: _____)	.00

Notes:

General – For each category listed under Facility Type, show the total amount expended and the amounts associated with new construction and/or modernization/rehabilitation.

1. Includes expenditures for piers, wharves, handling equipment, and open and closed storage facilities.
2. Includes expenditures for road, rail, pipeline, and utility improvements. The key distinction between on-terminal versus off-terminal is whether the expenditure was on port-owned property (i.e. on-terminal).
3. Includes local costs for both Federal and connecting channels, berths, disposal sites, and mitigation.
4. Includes local costs for connecting channels, berths, disposal sites, and mitigation.
5. Includes expenditures for any structures, land, and fixtures not related to cargo movement, such as maintenance or administrative facilities.

Finance Officer (or Preparer): _____

Telephone Number: _____

Port Name: _____ **Date:**

AAPA PORT EXPENDITURE SURVEY - Projections for FYs 2004-2008

(Actual U.S. Dollars)

FACILITY TYPE		TOTAL EXPENDITURES
General Cargo[1]		.00
Specialized General Cargo[1] (Incl: container, ro-ro, auto)		
Dry Bulk Cargo[1]		
Liquid Bulk Cargo[1]		
Passenger or Cruise[1]		
Infrastructure Improvements[2]		
On-Terminal	Highway	.00
	Rail	
	Utilities	
	Other (_____)	
Off-Terminal	Highway	
	Rail	
	Utilities	
	Other (_____)	
Dredging[3]		
Other[4]	(Specify _____)	
	(Specify _____)	
	(Specify _____)	
Total		.00

TYPE OF FUNDING SOURCE	DOLLAR AMOUNT (Actual US$)
Internal Revenues (Earned Income)	.00
General Obligation Bonds	.00
Revenue Bonds	.00
Loans (Source: _____)	.00
Grant (Type:_____)	.00
Other (Specify: _____)	.00
(Specify: _____)	.00

Notes:

1. Includes expenditures for piers, wharves, handling equipment, and open and closed storage facilities.
2. Includes expenditures for road, rail, pipeline, and utility improvements. The key distinction between on-terminal versus off-terminal is whether the expenditure was on port-owned property (i.e. on-terminal).
3. Includes local costs (maintenance and improvement dredging) for both Federal and connecting channels, berths, disposal sites, and mitigation.
4. Includes expenditures for any structures, land, and fixtures not related to cargo movement, such as maintenance or administrative facilities.

Finance Officer (or Preparer): _____

Telephone Number: _____